

Can we see neutrino flares? Exploring the source parameter space for detectability.

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The new generation of powerful instruments are reaching sensitivities and temporal resolutions that will allow a multi-messengers detection of transient phenomena. In this study, we explore the parameter-space of flaring sources (in particular in terms of luminosity, time-variability or emission energy band) that would enable the detection of transient neutrino signatures. We consider neutrinos produced by photo-hadronic interactions on various photon fields in the source. We give robust necessary conditions on the photon flux from the sources to ensure the detection of neutrinos from current and upcoming experiments.

Summary

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